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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,335	05/19/2000	Lakshmi Narasimha Ankireddipally	15437-0511	8273

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EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2126

12

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/574,335

Applicant(s)

ANKIREDDIPALLY ET AL.

Examiner

Phuong N. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21 - 30 is/are pending in the application.
- 4a) Of the above claim(s) 1 - 20 and 31 - 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21 - 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This application is response to the application filed on 11/04/03. Claims 21 – 30 are presented for examination. Claims 1 – 20 and 31 – 40 have been canceled.

2. Applicants are required to update the status of the copending application with Serial number or US patent number (see page 1 of the Specification).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

4. **Claims 21, 22, 26 – 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Berkowitz, US patent no. 6,529,921.**

5. **As to claim 21**, Berkowitz teaches the invention as claimed including a computer-implemented method for performing a transaction comprising the steps of:

producing a transaction instance data structure (arbitration is associated with a record data structure, col. 13 lines 35 – 49 and col. 14 lines 30 – 65) indicating a plurality of operations (changes of the transactions, col. 14 lines 30 – 65) constituting a

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transaction; the transaction instance data structure indicating a linking of the plurality of operations to indicate an operation performance order (order, col. 6 lines 15 – 40 and col. 15); the transaction instance data structure further indicating conditioning logic data (arbitration objects comprises all proposals to control the changes either commit, abort, prepare to commit, col. 6 lines 32 – 55, col. 13 lines 35 – 48, col. 14 lines 26 – 65 and col. 15) for changing the operation performance order such that the plurality of operations is capable of being performed in more than one possible order; and

for each of the plurality of operations

producing an operation request message (inherent before sending message) indicating input data for performing an operation; sending (sending message, col. 5 lines 50 – 60 and col. 6 lines 35 – 45) the operation request message to a service application to perform the operation using the input data; receiving (receiving message, col. 6 lines 35 – 45) an operation response message from the service application (resource manager, col. 5 lines 37- 49) indicating output data from the operation; and determining a next operation to perform (evaluate the next active transaction, col. 15 lines 18 – 59) using the conditioning logic data and the output data of the operation response message.

6. **As to claim 22**, Berkowitz teaches performing a transaction wherein the conditioning logic data indicates at least one of a mathematical expression, a function, and a variable data item (commit or abort, col. 14 lines 30 – 65 and col. 15); and wherein the step of determining the next operation to perform using the conditioning

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logic data and the output data of the operation response message includes using the output data (commit or abort, col. 14 lines 30 – 65 and col. 15) to evaluate the at least one of the mathematical expression, the function, and the variable data item.

7. **As to claim 26**, Berkowitz teaches performing a transaction further including receiving a transaction request message indicating a request to perform the transaction from a requesting application residing on a first computer included in a distributed network; and wherein the service application resides on a second computer included in the distributed network (remote transactions, col. 6 lines 32 – 46).

8. **As to claim 27**, Berkowitz teaches wherein the distributed network is the Internet (Internet, col. 5 lines 1 – 20).

9. **As to claim 28**, this is the software claim of claim 21. See claim 21 for rejection.

10. **As to claim 29**, see rejection for claim 22 above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkowitz, US patent no. 6,529,921 as applied to claim 21 above, in view of Chen, US patent no. 6,507,856.

13. As to claim 23, Berkowitz does not explicitly teach performing a transaction wherein the operation request message and the operation response message include extensible markup language (XML) tags indicating data items.

Chen teaches performing a transaction wherein the operation request message and the operation response message include extensible markup language (XML) tags indicating data items (XML, col. 3 lines 35 – 65).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Chen and Berkowitz's because Chen's XML tags would provide a wider field on use for Berkowitz's system using XML to run the application on the Internet.

14. Claims 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkowitz, US patent no. 6,529,921 as applied to claim 21 above, in view of Srinivasan, US patent no. 5,893,108.

15. As to claim 24, Berkowitz does not explicitly teach the steps of for performing a transaction wherein the transaction instance data structure is a directed acyclic graph

(DAG) including a plurality of nodes; each operation being represented by a node; the nodes being arranged in the transaction instance DAG such that paths through the transaction instance DAG indicate the more than one possible order in which the plurality of operations may be performed; and wherein performing the transaction further includes traversing a path through the plurality of nodes of the transaction instance DAG.

16. Srinivasan teaches performing a transaction wherein the transaction instance data structure is a directed acyclic graph (DAG, col. 14 lines 28 – 60 and col. 1 lines 57 – 60) including a plurality of nodes (plurality of nodes, col. 14 lines 28 – 60); each operation being represented by a node; the nodes being arranged in the transaction instance DAG such that paths through the transaction instance DAG indicate the more than one possible order in which the plurality of operations (one or more operations, col. 14 lines 28 – 60) may be performed; and wherein performing the transaction further includes traversing a path through the plurality of nodes of the transaction instance DAG.

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Srinivasan and Berkowitz's because Srinivasan's DAG transaction would enable an object-oriented application system to access data in a relational database management system in an object-oriented manner.

18. **As to claim 25**, Berkowitz as modified by Srinivasan teaches the computer-implemented method of claim 24 for performing a transaction wherein the path through the graph is determined at runtime (run-time, col. 24 lines 28 – 35).

19. **As to claim 30**, see rejection for claim 24 above.

Response to Arguments

20. Applicant's arguments filed on 11/04/03 have been fully considered but they are not persuasive.

21. Applicant argued that

The method of claim 21 is possible to manage a transaction centrally and conveniently (page 11, paragraph 3). The changes included in the snapshot cannot be fairly read to be the operations (page 12 third paragraph). The snapshot of Berkowitz does not indicate any linking between the changes to indicate a performance order (page 12, last paragraph). The snapshot has no conditioning logic data that can be used to alter the performance order to the changes (page 13 paragraph 2). The source node does not receive anything from the new node (page 13, last paragraph). The source node does not determine a next operation to perform using the conditioning logic data and output data (page 14, first paragraph).

22. In response,

Examiner does not see anywhere in the claim 21 claiming it is possible to manage a transaction centrally and conveniently. The Microsoft Computer Dictionary Fifth Edition defines the "operation" as "A specific action carried out by a computer in the process of executing program"; therefore, all changes made during the execution of transactions are operations. Examiner did not cite the snapshot for indicate any linking between the changes to indicate a performance order and for conditioning logic data that can be used to alter the performance order to the changes. Reading further on col. 6 lines 32 – 55, col. 13 lines 35 – 48, col. 14 lines 26 – 65, the arbitration associated with the data structure comprises all proposals to control the changes either commit, abort, or prepare to commit (col. 6 lines 15 – 65). That is the logic to control the performance order. Again, examiner did not cite the source node for determining a next operation to perform using the conditioning logic data.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (703) 605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)305-9678. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)746-7140.

Ph
January 21, 2004


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
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